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- Published:**  
— with international search report  
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: MEDICAMENT FOR THE TREATMENT OF DISEASES DUE TO INFECTION BY NEISSERIA MENINGITIDIS

(57) Abstract: A medicament for the treatment or prevention of diseases due to infection by Neisseria meningitidis, characterized in that it comprises glycoconjugates and/or lipooligosaccharides (LOS) included in outer membrane vesicles, blebs, lipid layers, liposomes and/or killed or commensal bacteria with cross-reactive antigens to Neisseria meningitidis of the serogroup A, B, C, H, I, K, L, X, Y, Z, 29E or W135, or non-capsulated meningococcal strains, and/or antibodies against such glycoconjugates and/or lipooligosaccharides.

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K39/095 A61P31/04 //A61K33/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, MEDLINE, EMBASE, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JI YIN-DUO ET AL: "The antigen specificity of meningococcal bactericidal antibodies induced by <i>N. lactamica</i> and <i>N. meningitidis</i> ." ZHONGHUA WEISHENGQUXUE HE MIANYIXUE ZAZHI, vol. 14, no. 4, 1994, pages 233-237, XP008013995	1,2,4,5,7,8
Y	ISSN: 0254-5101 abstract --- -/--	9,10



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*&\* document member of the same patent family

Date of the actual completion of the international search

11 November 2003

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20/11/2003

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WO 00 50074 A (GORRINGE ANDREW RICHARD ;HUDSON MICHAEL JOHN (GB); IMP COLLEGE SCH) 31 August 2000 (2000-08-31)</p> <p>page 1, line 5 - line 8  page 2, line 25 - line 32  page 3, line 8 - line 24  page 4, line 2 - line 5  page 5, line 19 -page 6, line 13  page 10, line 20 - line 26  page 11, line 24 -page 12, line 3  examples 3,4  claims 1-6</p>	1,2,4-7, 9,10
X	<p>EP 0 941 738 A (AMERICAN CYANAMID CO)  15 September 1999 (1999-09-15)  paragraphs  '0013!', '0014!', '0016!'-'0018!', '0037!'-'0039!',  '0042!', '0044!'</p>	1-7,9-11
Y	<p>FR 2 782 642 A (FORCEVILLE XAVIER)  3 March 2000 (2000-03-03)  page 4, line 4 - line 5  claims 1,3,6</p>	9,10
A	<p>KIM J J ET AL: "MONOCLONAL ANTIBODY IDENTIFICATION OF SHARED LIPOOLIGOSACCHARIDE EPITOPES OF NEISSERIA-MENINGITIDIS AND NEISSERIA-LACTAMICA"  90-247-3607-2. 1988,  1988, pages 563-568, XP000109696  INTERNATIONAL PATHOGENIC NEISSERIAE CONFERENCE, NOORDWIJKERHOUT, NETHERLANDS, SEPTEMBER 15-18, 1986. XV+842P. KLUWER ACADEMIC PUBLISHERS: DORDRECHT, NETHERLANDS; BOSTON, MASSACHUSETTS, USA.  ILLUS. ISBN90-247-3607-2. 1988  cited in the application  abstract  page 604, column 1, paragraph 3 -column 2, paragraph 2  page 606, column 1, paragraph 4 - paragraph 5  page 606, column 2, paragraph 3</p>	
A	<p>GRIFFISS J M ET AL: "Meningococcal molecular mimicry and the search for an ideal vaccine."  TRANSACTIONS OF THE ROYAL SOCIETY OF TROPICAL MEDICINE AND HYGIENE. ENGLAND 1991,  vol. 85 Suppl 1, 1991, pages 32-36,  XP008013992  ISSN: 0035-9203  page 34</p>	

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP 03/06799

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☒ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

## Continuation of Box I.2

Present claims 1,3-11 relate to a compounds defined by reference to a desirable characteristic or property, namely glycoconjugates and lipooligosaccharides from commensal bacteria with cross reactive antigens to *Neisseria meningitidis* and antibodies against such glycoconjugates and lipooligosaccharides

The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compound by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the glycoconjugates and lipooligosaccharides from *Moraxella catarrhalis* and *Neisseria lactamica* (see claim 2, and description page 16, line 26-29 and examples) p

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

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